

U.S. Patent Application No. 10/076,209
Amendment dated June 8, 2004
Reply to Office Action dated March 9, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A drilling fluid or mud comprising at least one alkali metal formate or monovalent carboxylic salt and at least one emulsifier and at least one sealing or fluid loss additive and at least one hydrocarbon-based fluid, wherein the at least one hydrocarbon-based fluid is partially or totally emulsified into an aqueous fluid containing the at least one alkali metal formate or monovalent carboxylic salt.

Claim 2 (previously presented): A drilling fluid comprising at least one alkali metal formate and at least one emulsifier, and at least one sealing or fluid loss additive and at least one hydrocarbon-based fluid.

Claim 3 (previously presented): The completion fluid of claim 2, further comprising at least one synthetic mud fluid.

Claim 4 (original): The drilling fluid of claim 2, wherein said alkali metal formate comprises potassium formate.

Claim 5 (original): The drilling fluid of claim 2, wherein said drilling fluid further comprises at least one acid.

Claim 6 (previously presented): The drilling fluid of claim 2, further comprising at least one solid weighting material, at least one wetting agent, at least one organo clay, at least one filtration control agent, at least one polymer, or combinations thereof.

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Claim 7 (original): The drilling fluid of claim 2, wherein said emulsifier comprises a dimer trimer acid, imadazoline, tall oil, or combinations thereof.

Claim 8 (previously presented): The drilling fluid of claim 2, wherein said hydrocarbon-based fluid comprises diesel oil.

Claim 9 (previously presented): The drilling fluid of claim 2, wherein said hydrocarbon-based fluid comprises at least one synthetic oil.

Claim 10 (original): The drilling fluid of claim 5, wherein said acid is formic acid or an acid derivative thereof.

Claim 11 (original): The drilling fluid of claim 1, wherein said alkali metal formate is less than fully saturated in said drilling fluid.

Claim 12 (original): A method to drill a well comprising drilling said well in the presence of the drilling fluid of claim 1.

Claim 13 (original): A method to drill a well comprising drilling said well in the presence of the drilling fluid of claim 2.

Claim 14 (currently amended): A method to reduce the solids content in a drilling fluid comprising substituting at least a portion of said solid weighting material with an aqueous solution comprising ~~at least one alkali metal formate~~ the drilling fluid of claim 2.

Claim 15 (previously presented): A drilling fluid or mud made by mixing at least one alkali metal formate and at least one emulsifier and at least one sealing or fluid loss additive and at least one hydrocarbon-based fluid.

Claim 16 (canceled)

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Claim 17 (previously presented): The drilling fluid or mud of claim 1, wherein said drilling fluid or mud is a mixture of hydrocarbon-based fluid and aqueous-based solution present at a ratio of 65% by volume hydrocarbon fluid: 35% aqueous-based solution to 1% by volume hydrocarbon fluid: 99% by volume aqueous based solution.

Claim 18 (previously presented): The drilling fluid of claim 2, wherein said drilling fluid is a hydrocarbon-water emulsion.

Claim 19 (previously presented): The drilling fluid of claim 2, wherein said drilling fluid is a mixture of hydrocarbon-based fluid and aqueous-based solution present at a ratio of 65% by volume hydrocarbon fluid: 35% aqueous-based solution to 1% by volume hydrocarbon fluid: 99% by volume aqueous based solution.

Claim 20 (previously presented): The drilling fluid or mud of claim 1, wherein no solid weighting material is present.

Claim 21 (previously presented): The drilling fluid of claim 2, wherein no solid weighting material is present.

Claim 22 (canceled)

Claim 23 (canceled)

Claim 24 (currently amended): The drilling fluid of claim 2, wherein the at least one alkali metal formate ~~or monovalent carboxylic acid~~ is partially or totally emulsified into the hydrocarbon-based fluid.

Claim 25 (currently amended): The drilling fluid of claim 2, wherein the at least one hydrocarbon-based fluid is partially or totally emulsified into an aqueous fluid containing the at

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least one alkali metal formate or ~~mono~~valent carboxylic salt.